

## **726 Class (TRIDENT) SONAR Inspection Guide**

Rev: Apr 2004

Please Return to LCDR Young with updates, corrections, and comments

Prior to doing anything on this list, ensure you understand the guidance for INSURV Submarine Weapons Assistants. The document that specifies when each item is conducted is the ship's agenda. This guide is only a list of inspections to be conducted.

The ship may be underway at the start of the inspection.

### Attend the following briefs:

- TLD brief
- Officer/LPO brief
- Inbrief with ship's force counterparts to review agenda, Inspection guide, and CSMP.

### Admin Review

Preunderway checks as applicable.

Latest PMT OSARs for sensors and hydrophones.

CSMP review. For each deficiency, inform LCDR Young:

- is it still accurate?
- is it significant?
- do we need to add amplifying or updated info?

### AN/BQQ-6 (TABLE 1-1) or AN/BQQ-5E(V)4 (TABLE 1-2) FL's.

Document Fault Group, TNUM and system impact. Note: FL's maybe performed prior to open and inspect, during post arrival.

### AN/BQR-22 EC-17

Ref: SO-105/R4 step 1-4

Verify Power On Self-Test Diagnostics run satisfactorily

Perform Function Test

### AN/BQR-27(V)1 or AN/BQQ-10 or AN/BQQ-9

Ref: Op guidelines

SO-212/R-11

Perform Thin Line, Fat Line, and Hull Array Operability Tests

### Group C DSSG (Depth Sound Speed Group)

Ref: SO-403/R-1

Perform Performance Test

### Group F DSG (Depth Sounding Group)(fathometer)

Ref: SO-406/Q-1

Perform Operability Test

AN/UNQ-9 Digital Tape Recorder

Ref: SO-205/M-3

Perform BITE Test

AN/WLR-9B

Ref: SO-205/M-3

Perform Operability Test

AN/WLR-9B

Ref: INSURVINST 4730.2D

Monitor throughout test period for alerts and compare to passive broadband.

Logistics Audit (Perform in-port or underway)

Ref: INSURVINST 4730.2D

Verify Program in place and spot check inventory for:

- Maintenance Assistance Modules (MAM)
- Maintenance Aids Stowage (MAS)
- Technical Manuals
- Test Equipment

Nav. comparison

Ref: INSURVINST 4730.2D

Compare navigational inputs for course and speed between AN/BQQ-5E(V)4 or AN/BQQ-6, AN/BQQ-10, AN/WLR-9B, fire control, and on-line navigation systems.

Group F (Depth Sounding Group)

Ref: SO-406/S-3R

Op. notes: transducer electrical checks should be done after deep dive

Monitor system on outbound transit and throughout test period and compare depth readings to chart.

Measure transducer impedance and insulation resistance

AN/BQQ-5E(V)4 or AN/BQQ-6 Passive Broadband

Ref: INSURVINST 4730.2D

Operate all modes of passive broadband and compare bearings to periscopes.

Test systems ability to interface with fire control.

NVMS (Noise Vibration Monitoring System)

Ref: INSURVINST 4730.2D

During angles and high speed run monitor all hydrophones and bands for rattles/noises.

### TB-16 TOWED ARRAY LOS

Ref: INSURVINST 4730.2D

Monitor Towed Array Ops.

NSWC Radiated Noise Assistant performs Radiated Noise Monitoring.

- AN/BQR-27(V)1 or AN/BQQ-10 (ARCI) or AN/BQQ-9/BQR-15: Monitor displays with Thin Line Array deployed and verify operation of various modes.
- Verify target and tracker data is sent to AN/BQR-22 via the ON-247B Patch Panel and the data is sent to the fire control system.

### Group B (Acoustic Communication Group)

Ref: MIP SO-402

Op. notes: transducer electrical checks should be done after deep dive

Transmit on all transducers and verify using the AN/WLR-9. Verify AN/BQQ-5/Q-6 is muted. (SO-402/R-1)

Measure transducer impedance and insulation/cable resistance.(SO-402/S-4R) (Conducted inport; requires test equipment from PMT)

### Group C (Depth Sound Speed Group)

Ref:

Op. notes: 1) Deep dive event

2) transducer electrical checks should be done after deep dive

Monitor during deep dive with actual ships depth for both upper and lower sound heads.

Measure transducer and cable insulation resistance. (SO-403/S-1R, ship's force conduct inport)

### Towed Array Handling Systems (OK-542 and OK-276)

Ref:

Op notes: Depth dependent event

Deploy and retrieve TB-16 Array per agenda and SSM OI 637.10B

Deploy and retrieve Thin Line Array per agenda and SSM OI 637.10B

### Group G (Bathymograph Group)

Ref: SSM

Launch SSXBT device.

### ON-247B Patch Panel

Ref: MIP SO-267

Demonstrate units ability to pass information from all sensors to AUX systems. (SO-267/R-2M)

Group E (Distress Beacon Group)

Ref: MIP SO-405

While submerged energize the FWD, Missile and AFT Units and monitor on AN/WLR-9 (SO-405/R-3)

Op notes: 1) submerged for op test

2) PMT/inport electrical test for transducers

Measure transducer/cable insulation resistance (after deep dive) (SO-404/S-1R; inport with impedance bridge from PMT).

Group D (Emergency Communication Group)

Ref: SO-404/R-1

Op notes: 1) submerged for op test

2) PMT/inport electrical test for transducers

Talk back and forth between the FWD, Missile and AFT Compartments.

Measure transducer/cable insulation resistance (after deep dive).

**In Port Open and Inspect**

1. Conduct OK-276 Towed Array Handler Valve Stack Flushing MRC.

2. Inspect external and internal condition of selected sonar equipment for dirty filters, damaged parts, clearances, defective workmanship, painting and proper cabling.(tag out required)

3. Conduct testing which requires PMT support from above items or any other testing identified during underway phase.

**AN/BQQ-6 FL CHART TABLE 1-1**

<b>FL</b>	<b>TITLE</b>	<b>COMP</b>
<b>0301</b>	<b>PFEC UNIT 3</b>	
<b>0401</b>	<b>SAPB UNIT 4</b>	
<b>0501</b>	<b>IRP UNIT 5</b>	
<b>0601</b>	<b>IRP UNIT 6</b>	
<b>0701</b>	<b>SAPP UNIT 7</b>	
<b>1401</b>	<b>LTB/BP UNIT 14 &amp; 13 TAR</b>	
<b>1501</b>	<b>HFAP UNIT 15 (PM USE ONLY)</b>	
<b>1601</b>	<b>MIU/DSA UNIT 16</b>	
<b>1701</b>	<b>MIU/DSA UNIT 17</b>	
<b>2501</b>	<b>CDC UNIT 25</b>	
<b>2601</b>	<b>CDC UNIT 26</b>	
<b>2701</b>	<b>CDC UNIT 27</b>	
<b>3101</b>	<b>SSDC UNIT 31</b>	

**NOTE: DOCUMENT FG, TNUM AND SYSTEM IMPACT**

**AN/BQQ-5E(V)4 FL CHART TABLE 1-2**

<b>FL</b>	<b>TITLE</b>	<b>COMP</b>
<b>3001</b>	<b>SA PFEC UNIT 109</b>	
<b>3201</b>	<b>SSDC PM/FL UNIT 31</b>	
<b>3230</b>	<b>NTDS IOC0 UNIT 31</b>	
<b>3231</b>	<b>NTDS IOC1 UNIT 31</b>	
<b>3271</b>	<b>UNIT 31 AUDIO &amp; AUX EQUIP</b>	
<b>3501</b>	<b>EMS 1 UYK-43</b>	
<b>3502</b>	<b>EMS 0 UYK-43</b>	
<b>4501</b>	<b>PDR UNIT 120</b>	
<b>4901</b>	<b>PDR UNIT 177</b>	
<b>5300(ALL)</b>	<b>CDC 123/168/169/171</b>	
<b>5401</b>	<b>PASS. PROC. UNIT 115</b>	
<b>5501</b>	<b>PASS. BEAMFORMER UNIT 113</b>	
<b>6000(ALL)</b>	<b>UNIT 31 SPEC.ANALYZER</b>	
<b>6200(ALL)</b>	<b>MASC/CBF UNIT 811</b>	
<b>6601</b>	<b>SNR. SET CONTROL UNIT 122</b>	

**NOTE: DOCUMENT FG, TNUM AND SYSTEM IMPACT**